

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
Andreas TAGESSON et al.) Group Art Unit: 2618
Application No.: 10/559,798) Examiner: S. Nguyen
Filed: December 8, 2005)
For: REDUCTION OF RADIO)
FREQUENCY LEAKAGE)

U.S. Patent and Trademark Office
Customer Window, Mail Stop AF
Randolph Building
401 Dulany Street
Alexandria, VA 22314

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants hereby request that a panel of Examiners formally review the legal and factual basis of the rejection in the above-identified application prior to the filing of an Appeal Brief. Applicants assert that the outstanding rejections are clearly improper and based upon errors in fact.

Claims 14, 16, 17, 22, 23, and 27 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Boesch et al. (U.S. Patent No. 6,188,877, hereinafter "BOESCH") in view of Ono et al. (U.S. Patent No. 7,139,538, hereinafter "ONO"). Applicants submit that the Examiner's rejection under 35 U.S.C. § 103 is *improper* and based on *factual errors* due to *clear deficiencies*.

For example, independent claim 14 recites, among other things, breaking a second connection between a signal generating chip and a signal processing chip when transmitting or receiving signals in a first frequency band on a first connection; and breaking the first connection between the signal generating chip and the signal processing chip when transmitting or receiving signals in a second frequency band on the second connection, where the breaking of the second connection and the breaking of the first connection are performed by at least one switch connected to the first connection and the second connection and located between the signal generating chip and the signal processing chip.

The Examiner alleged that BOESCH discloses breaking the second connection and breaking the first connection, and *admitted* that BOESCH does not disclose or suggest a signal generating chip or a signal processing chip (final Office Action, page 5). The Examiner alleged that ONO discloses a "generating circuit chip" and a "power amplifying chip" and relied upon an RF IC 110 as allegedly corresponding to the generating

circuit chip and an RF power module 200 as allegedly corresponding to the power amplifying chip (final Office Action, pages 5-6).

ONO discloses that RF IC 110 is a high-frequency signal processing circuit formed as a semiconductor integrated circuit having a modulating/demodulating circuit, band pass filters, and low-noise amplifiers (col. 4, lines 26-35). ONO discloses that RF module 200 includes a power amplifier 210a for amplifying a transmission signal of 900 MHz in the frequency band of the GSM and a power amplifier 210b for amplifying a transmission signal of 1800 MHz in the frequency band of the DCS (col. 4, lines 53-58). ONO discloses that components of RF module 200 are formed as semiconductor integrated circuits on multiple semiconductor chips (col. 9, lines 31-56).

Even assuming, for the sake of argument, that ONO discloses that RF IC 110 is located on one chip and reasonably corresponds to a signal generating chip, and that RF module 200 is located on another chip and reasonably corresponds to a signal processing chip (points that Applicants do not concede), ONO does not disclose at least one switch that is connected to first and second connections between the RF IC chip and the RF module chip and that is located between the RF IC chip and the RF module chip, as would be required by claim 14 based on this interpretation of ONO. Rather, ONO discloses that switches 420a and 420b are located in a front end module 400 located between the RF module 200 and the antenna (Figure 1; col. 4, lines 44-48; col. 5, lines 6-12). Thus, ONO does not disclose or suggest breaking a second connection between a signal generating chip and a signal processing chip when transmitting or receiving signals in a first frequency band on a first connection; and breaking the first connection between the signal generating chip and the signal processing chip when transmitting or receiving signals in a second frequency band on the second connection, where the breaking of the second connection and the breaking of the first connection are performed by at least one switch connected to the first connection and the second connection and located between the signal generating chip and the signal processing chip, as recited in claim 14.

In the Advisory Action, dated November 3, 2009, the Examiner alleged that BOESCH alone discloses all of the features of the independent claims "since the signal generating chip is inherently in a transmitter." This is *directly contrary* to the Examiner's admission in the final Office Action. Further, in the Advisory Action, the Examiner provides several allegations regarding the disclosure of BOESCH. The Examiner does not even allege, however, that BOESCH discloses the at least one switch connected to the first connection and the second connection and located between the signal generating chip and the signal processing chip, as recited in claim 14. Rather, the Examiner merely alleged that BOESCH discloses "a generating unit" and "a processing

unit." The Examiner has not established, and BOESCH does not disclose, that this generating unit is a signal generating *chip* and that this processing unit is a signal processing *chip*, as recited in claim 14. In fact, the Examiner admitted that BOESCH does not disclose a signal generating chip or a signal processing chip (final Office Action, page 5). Thus, the Examiner *did not establish a prima facie case of obviousness*.

The Examiner alleged that it would have been obvious "to have Boesch, modified by Ono in order to save space as well cost of the transceiver" (final Office Action, page 6). Applicants submit that the Examiner's allegation is merely a conclusory statement of an alleged benefit of the combination. Further, the Examiner did not explain how combining the disclosure of ONO with the disclosure of BOESCH would save space and cost of a transceiver in BOESCH. Thus, the Examiner's reason for combining BOESCH and ONO *falls short of establishing a prima facie case of obviousness* with regard to claim 14, and does not amount to the articulated reasoning required by KSR International Co. v. Teleflex Inc., 550 U.S. 398 (2007) (citing In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

For at least the foregoing reasons, Applicants respectfully submit that claim 14 is patentable over BOESCH and ONO, whether taken alone or in any reasonable combination. Independent claims 16, 17, 22, 23, and 27 recite features similar to, yet possibly different in scope than, the features described above with regard to claim 14. Accordingly, claims 16, 17, 22, 23, and 27 are patentable over BOESCH and ONO, whether taken alone or in any reasonable combination, for at least reasons similar to the reasons given with regard to claim 14.

Claims 14, 16, 17, and 19-29 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Adar (U.S. Patent No. 5,774,017, hereinafter "ADAR") in view of ONO. Applicants submit that the Examiner's rejection under 35 U.S.C. § 103 is *improper* and based on *factual errors* due to *clear deficiencies*.

For example, independent claim 14 recites, among other things, breaking a second connection between a signal generating chip and a signal processing chip when transmitting or receiving signals in a first frequency band on a first connection; and breaking the first connection between the signal generating chip and the signal processing chip when transmitting or receiving signals in a second frequency band on the second connection, where the breaking of the second connection and the breaking of the first connection are performed by at least one switch connected to the first connection and the second connection and located between the signal generating chip and the signal processing chip, as recited in claim 14.

The Examiner alleged that ADAR discloses breaking the second connection and breaking the first connection, and *admitted* that ADAR does not disclose or suggest a signal generating chip (final Office Action, page 6). The Examiner alleged that ONO discloses a "generating circuit chip" and a "power amplifying chip"

and relied upon RF IC 110 as allegedly corresponding to the generating circuit chip and RF power module 200 as allegedly corresponding to the power amplifying chip (final Office Action, pages 6-7). Applicants submit that the Examiner's allegations with regard to ONO are *deficient* for at least the reasons given above.

Even assuming, for the sake of argument, that ONO discloses that RF IC 110 is located on one chip and reasonably corresponds to a signal generating chip, and that RF module 200 is located on another chip and reasonably corresponds to a signal processing chip (points that Applicants do not concede), ONO does not disclose at least one switch that is connected to first and second connections between the RF IC chip and the RF module chip and that is located between the RF IC chip and the RF module chip, as would be required by claim 14 based on this interpretation of ONO. Rather, ONO discloses that switches 420a and 420b are located in a front end module 400 located between the RF module 200 and the antenna (Figure 1; col. 4, lines 44-48; col. 5, lines 6-12). Thus, ONO does not disclose or suggest breaking a second connection between a signal generating chip and a signal processing chip when transmitting or receiving signals in a first frequency band on a first connection; and breaking the first connection between the signal generating chip and the signal processing chip when transmitting or receiving signals in a second frequency band on the second connection, where the breaking of the second connection and the breaking of the first connection are performed by at least one switch connected to the first connection and the second connection and located between the signal generating chip and the signal processing chip, as recited in claim 14.

In the Advisory Action, the Examiner alleged that ADAR alone discloses all of the features of the independent claims "since the signal generating chip is inherently in a transmitter." This is *directly contrary* to the Examiner's admission in the final Office Action. Further, in the Advisory Action, the Examiner provides several allegations regarding the disclosure of ADAR. The Examiner does not even allege, however, that ADAR discloses the at least one switch connected to the first connection and the second connection and located between the signal generating chip and the signal processing chip, as recited in claim 14. Rather, the Examiner merely alleged that ADAR discloses "a signal generating unit" and "a signal processing unit." The Examiner has not established, and ADAR does not disclose, that this signal generating unit is a signal generating *chip* and that this signal processing unit is a signal processing *chip*, as recited in claim 14. In fact, the Examiner admitted that ADAR does not disclose a signal generating chip (final Office Action, page 5). Thus, the Examiner *did not establish a prima facie case of obviousness*.

The Examiner alleged that it would have been obvious "to have Adar, modified by Ono in order to save space as well cost of the transceiver" (final Office Action, page 7). Applicants submit that the Examiner's

allegation is merely a conclusory statement of an alleged benefit of the combination. Further, the Examiner did not explain how combining the disclosure of ONO with the disclosure of ADAR would save space and cost of a transceiver in ADAR. Thus, the Examiner's reason for combining ADAR and ONO *falls short of establishing a prima facie case of obviousness* with regard to claim 14, and does not amount to the articulated reasoning required by KSR.

For at least the foregoing reasons, Applicants respectfully submit that claim 14 is patentable over ADAR and ONO, whether taken alone or in any reasonable combination. Claim 28 depends from claim 14 and is, therefore, patentable over ADAR and ONO for at least the reasons given with regard to claim 14.

Independent claims 16, 17, 22, 23, and 27 recite features similar to, yet possibly different in scope than, features described above with regard to claim 14. Accordingly, claims 16, 17, 22, 23, and 27 are patentable over ADAR and ONO, whether taken alone or in any reasonable combination, for at least reasons similar to the reasons given with regard to claim 14. Claims 19-21 and 29 depend from claim 17, and claims 24-26 depend from claim 23. Without acquiescing in the Examiner's rejection of claims 19-21, 24-26, and 29, Applicants submit that claims 19-21, 24-26, and 29 are patentable over ADAR and ONO for at least the reasons given with regard to claims 17 and 23.

In view of the foregoing remarks, Applicants submit that *clear deficiencies* exist with respect to the rejections of claims 14, 16, 17, and 19-29. Therefore, Applicants respectfully request withdrawal of the outstanding rejections and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,
HARRITY & HARRITY, LLP
By: Paul A. Harrity, Reg. No. 39,574/
Paul A. Harrity
Reg. No. 39,574

Date: November 30, 2009

11350 Random Hills Road
Suite 600
Fairfax, Virginia 22030
(571) 432-0800
Customer Number: 58561